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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/869,086      | 06/20/2001  | Ian David Johnson    | EF32168497SU        | 9806             |

7590 01/10/2005  
Pillsbury Winthrop LLP  
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EXAMINER

ABELSON, RONALD B

ART UNIT PAPER NUMBER

2666

DATE MAILED: 01/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                 |               |  |
|------------------------------|-----------------|---------------|--|
| <b>Office Action Summary</b> | Application No. | Applicant(s)  |  |
|                              | 09/869,086      | JOHNSON ET AL |  |
|                              | Examiner        | Art Unit      |  |
|                              | Ronald Abelson  | 2666          |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 8 is/are rejected.
- 7) ☒ Claim(s) 2-7 and 9-14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1</u> . | 6) <input type="checkbox"/> Other: _____  |

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***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding independent claims 1 and 8, it is ambiguous how the value of 'N' is determined. See claims 1 and 8 lines 5 and 7.

Claims 2-7 and 9-14 are objected to as being dependent upon a rejected claim.

***Allowable Subject Matter***

3. The following is a statement of reasons for the indication of allowable subject matter.

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Regarding claims 1 and 8, Calamvokis (US 5,592,476) teaches a method and apparatus for a digital data switching apparatus (fig. 3) for transmitting data from M low-bandwidth data sources (fig. 3 sources 23) to M low-bandwidth data destinations (fig. 3 destinations 23).

Calamvokis teaches M/N input multiplexers (fig. 3 MUX) for receiving data cells from respective sets of N said low-bandwidth data destinations. Note, in fig. 3 each adaptor card 22 is identical. Therefore, in this case,  $N=3$  corresponding to the N inputs to each adaptor card 22.

Calamvokis teaches M/N egress multiplexers (fig. 3 DEMUX) for transmitting data cells to respective sets of N said low bandwidth data destinations.

Calamvokis teaches a master control unit (fig. 4 Controller).

Calamvokis teaches a central switch (fig. 3 box 20) having M/N high-bandwidth input ports (box 21) arranged to receive data cells from respective ingress multiplexers, and M/N high-bandwidth output ports (fig. 3 box 21) arranged to transmit data cells to respective egress multiplexers, the central switch being arranged selectively to interconnect the input ports (fig. 3 box 21) and output ports (fig. 3 box 21), under the direction of the master control unit (fig. 4 Controller).

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Calamvokis teaches teach ingress multiplexer (fig. 6 box 45) being arranged to maintain N input queues (fig. 6 box 41) for queuing data cells received from respective data sources.

Smith teaches the concept of a multiplexer having input and output buffers (fig. 13).

However, nothing in the prior art of the record teaches or fairly suggests maintaining N input queues in each of the ingress multiplexes and maintaining M virtual output queues, in view of the prior art in combination with all the limitations listed in the claim.


#### **Conclusion**

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald Abelson whose telephone number is (571) 272-3165. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Ronald Abelson  
Examiner  
Art Unit 2666

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SUPERVISORY PATENT EXAMINER  
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